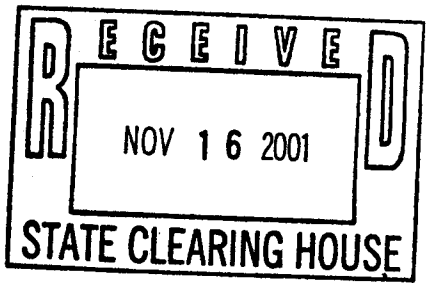

Initial Study and Negative Declaration

Source Shifting Agreement with Metropolitan Water District of Southern California for the Environmental Water Account

(This document is tiered from the CALFED Programmatic EIS/EIR, certified/Record of Decision issued August, 2000, pursuant to State CEQA Guidelines Section 15152.)

State of California
The Resources Agency
DEPARTMENT OF WATER RESOURCES

November 16, 2001

State of California
The Resources Agency
DEPARTMENT OF WATER RESOURCES

PROPOSED NEGATIVE DECLARATION

Source Shifting Agreement with Metropolitan Water District of Southern California for the Environmental Water Account

Project Description: Lead State Agency, California Department of Water Resources (Department) and Metropolitan Water District of Southern California (Metropolitan) propose to enter into an agreement whereby Metropolitan will defer delivery of up to 200,000 acre-feet of its State Water Project (SWP) entitlement water in 2002 (Project). The water would be made available for use by the Environmental Water Account (EWA), a project implemented under the CALFED Bay-Delta Program. The EWA (managed by the regulatory agencies U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), and California Department of Fish and Game (DFG)) will use the water for the purpose of fish protection. The agreement would allow the Department to call upon Metropolitan to defer delivery of at least 100,000 acre-feet of water. If Metropolitan's SWP allocation as of April 30, 2002 is sufficiently large to provide increased flexibility in Metropolitan's requested schedule, Metropolitan may defer up to an additional 100,000 acre-feet of water. The water may be deferred at a maximum rate of 25,000 acre-feet per month from January through August 2002 unless the rate and associated deferral schedule are changed by mutual agreement of the Department and Metropolitan. During the time that Metropolitan is deferring water, Metropolitan will rely upon local sources of water to meet its demands.

Depending on water supply conditions and water demand, the Department will return the deferred entitlement water, pay an annual fee to defer return of the water, or pay replacement costs for Metropolitan's purchase of replacement water as mutually agreed upon by the Department and Metropolitan. The Department will provide Metropolitan with a preliminary water repayment schedule on May 1, 2002 and an updated water repayment schedule on September 15, 2002. The Project costs will be paid for with non-contractor funds. Metropolitan and the other SWP contractors will not incur increased costs because of the EWA Program nor will there be an increased incremental cost upon the SWP or Central Valley Project (CVP).

Metropolitan will not receive more than its contractual entitlement as a result of this Project or increase its SWP delivery request. The Department and Metropolitan concur that the Project will not alter the timing or amounts of SWP water available to other contractors.

The Finding: The Project will not have a significant adverse impact on the environment.

Basis for Finding: While the Project changes the timing of the delivery of water to Metropolitan, it will not change the volume of water delivered. Metropolitan has adequate alternate local supplies and storage to draw on during the January through August 2002 deferment period. The deferment will not result in reduced deliveries that would negatively affect other water contractors. The water levels in SWP and Metropolitan supply reservoirs will remain within normal operational levels. Potential negative environmental effects such as groundwater overdraft, erosion, subsidence, dust, excessive power use, or water supply problems will not occur. Environmental consequences of the CALFED Bay-Delta Program were presented in CALFED's Programmatic EIS/EIR, adopted in 2000.

Therefore, this Negative Declaration is filed pursuant to Section 15070 et seq. of the Guidelines for Implementation of the California Environmental Quality Act.

The public review period for this proposed Negative Declaration and Initial Study will end December 17, 2001. All comments or questions should be directed to Department of Water Resources, Delores Brown, 3251 "S" Street, Sacramento, CA 95816-7017 (916/227-2407 and fax 916/227-7554). Copies of the Initial Study are available at the above address. CALFED's Programmatic EIS/EIR can be reviewed at the CALFED Bay-Delta Program, 1416 Ninth Street, Room 1147, Sacramento, CA.

Barbara J. McDonnell

Barbara J. McDonnell
Chief, Environmental Services Office

Date Nov 16, 2001

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I. INTRODUCTION

The CALFED Bay Delta Program identified a long-term comprehensive plan to restore the ecological health and improve water management for beneficial uses of the San Francisco Bay/Sacramento-San Joaquin Delta estuary system when it issued the Record of Decision for its *Final Programmatic Environmental Impact Statement/Environmental Impact Report* in August, 2000*.* Among the components identified was a need for additional fisheries protection measures above and beyond baseline regulatory measures to expedite recovery of listed fish species. The establishment of the Environmental Water Account (EWA) was a key component of this additional protection.

This Initial Study addresses the environmental impacts of an agreement establishing a particular asset, source shifting (Project), that will be used to meet the requirements of an operable EWA, as specified in the CALFED Bay-Delta Program Record of Decision (ROD). The EWA is a cooperative management program whose purpose is to provide protection to the fish of the Bay-Delta estuary through environmentally beneficial changes in the operations of the State Water Project (SWP) and federal Central Valley Project (CVP) at no uncompensated water cost to their water users. The EWA is intended to provide sufficient water, combined with the Ecosystem Restoration Program and the regulatory baseline, to address CALFED's fishery protection and restoration/recovery needs.

Purpose and Need for Action

An essential goal of the CALFED Program is to provide increased water supply reliability to water users while at the same time assuring the availability of sufficient water to meet fishery protection and restoration/recovery needs as part of the overall Ecosystem Restoration Program. The EWA focuses on resolving the fishery/water diversion conflict at the SWP/CVP export pumps because, in recent years, these diversions have suffered the greatest fluctuations, adversely affecting water supply reliability due to conflicts with fishery needs.

The EWA has been established to provide water for the protection and recovery of fish beyond water available through existing regulatory actions related to SWP/CVP operations. The EWA is a cooperative management program whose purpose is to provide protection/restoration to the fish of the Bay/Delta estuary through environmentally beneficial changes in the SWP/CVP operations at no uncompensated

water cost to the SWP/CVP water users and no net, increased incremental costs upon the SWP/CVP. This approach to fish protection required the acquisition of alternative sources of SWP/CVP water supply, called "EWA assets", which will be used to augment stream flows and Delta outflows, to modify exports to provide fishery benefits, and to replace the regular SWP/CVP water supply interrupted by the changes in SWP/CVP operations. The replacement water will compensate for reductions in deliveries resulting from EWA actions relative to existing facilities, SWP/CVP operations, and regulatory baseline.

Specific Metropolitan Source Shifting Project Purpose and Need for Action

Source shifting represents a short-term loan of water from export water users to support San Luis Reservoir storage levels during the summer. The California Department of Water Resources (Department) proposes to defer up to 200,000 acre-feet of SWP entitlement water deliveries to the Metropolitan Water District of Southern California (Metropolitan) to allow for storage of SWP/CVP water in San Luis Reservoir. The water would be retained in San Luis Reservoir as an EWA asset or used to enable an operational curtailment without causing algal blooms (low point) or dropping the reservoir water level below pump intakes. This water represents a substantial amount of water that can be used to provide assurances for SWP supplies and deliveries, as specified in the CALFED ROD.

Overview of the Four-Year EWA Program

The EWA Program is a cooperative management program involving five agencies that have responsibility for implementing the EWA. The U.S. Fish and Wildlife Service (USFWS), the National Marine Fisheries Service (NMFS), and the California Department of Fish and Game (DFG), (collectively, Management Agencies), have primary responsibility for managing EWA assets and exercising their biological judgment to determine what SWP/CVP operational changes are beneficial to the Bay-Delta ecosystem and/or the long-term survival of fish species, including those listed under the State and Federal Endangered Species Acts. Reclamation and the Department (collectively the Project Agencies) will cooperate with the Management Agencies in administering the EWA, including banking, borrowing, transferring, selling, and arranging for the conveyance of EWA assets, and making the operational changes proposed by the Management Agencies.

The EWA focuses on resolving the fishery/water diversion conflict at the SWP/CVP Delta export pumps because, in recent years, these diversions have suffered the greatest fluctuations in water supply reliability due to conflicts with fishery needs. To accomplish this purpose, the EWA will incorporate environmentally beneficial changes to the operation of the SWP/CVP, at no uncompensated water cost to the SWP/CVP water users. The EWA is intended to provide sufficient protections, combined with the Ecosystem Restoration Program and the regulatory baseline, to address CALFED's fishery protection and restoration/recovery needs. The "EWA assets" will be used to:

- augment streamflow and Delta outflow;
- modify exports to provide fishery benefits during critical life history stages; and
- replace SWP/CVP water supply interrupted by the changes to SWP/CVP operations.

The existing regulatory baseline programs include:

- 1993 Winter-run Biological Opinion (NMFS);
- 1995 Delta Water Quality Control Plan, State Water Resources Control Board (SWRCB);
- 1995 Delta Smelt Biological Opinion (USFWS);
- management of the full 800,000 acre-feet of CVP Yield Pursuant to Section 3406(b)(2) (or (b)(2) Water) of the Central Valley Project Improvement Act (CVPIA) ; and
- other environmental protections, including Level 2[1] refuge water supplies as required by the CVPIA.

The EWA will not be used to meet any new regulatory requirements under the Federal Endangered Species Act and the California Endangered Species Act or other statutes.

Several processes can be used to acquire EWA assets and/or functional equivalent sources of SWP/CVP water supply to offset the effects of operational curtailments under the EWA program so that deliveries will not be affected.

1. Acquisition of Water for the EWA

A. Purchases

The Project Agencies will use EWA funds to purchase EWA assets from willing sellers both north and south of the Delta. Purchases can include leases, options, long-term agreements, and any other property or contractual transaction that make alternative SWP/CVP supplies available south of the Delta or available for conveyance to south of the Delta. Purchases will also include the acquisition of storage space in groundwater basins to bank EWA assets. The Management Agencies will identify assets to replace water lost to the SWP/CVP due to operational curtailment, and to be pledged as collateral when the EWA borrows from the SWP/CVP. The Project Agencies will accept the asset if the collateral meets the agreed guidelines for borrowing. The release of the asset shall be in accordance with a schedule agreed to by both the Management Agencies and the Project Agencies. A tentative release schedule will accompany an identified asset. The Project Agencies will coordinate EWA water acquisition with Level 4[2] refuge water acquisitions to ensure that both of these priority acquisitions are accomplished each year.

[1] Level 2 – The 1989 and 1992 Refuge Water Supply Studies define Level 2 refuge water supplies as the average amount of water the refuges received between 1974 and 1983.
[2] Level 4 – Level 4 refuge water supplies are defined in the 1989 and 1992 Refuge Water Supply Studies as the amount of water for full development of the refuges based upon management goals developed in the 1980s.

B. Delta Operations

SWP/CVP Delta operations will involve four mechanisms by which EWA water assets are acquired.

i. Sharing of (b)(2) water and Ecosystem Restoration Program (ERP) water pumped by the SWP.

The SWP and the EWA will share, on a 50-50 basis, the lesser of:

a) water released from storage or made available for upstream purposes under either CVPIA Section 3406(b)(2) or the Ecosystem Restoration Program (ERP) and arrives in the Delta with no further ERP or (b)(2) purposes to serve;
b) water that exceeds the export capacity of the CVP Tracy pumping plant;
c) water for which the SWP and EWA both have demand for south of the Delta; and
d) water the SWP has capacity to pump.

ii. Joint Point[3]: SWP Wheeling of CVP and EWA water.

The SWP will use excess capacity at its Harvey O. Banks (Banks) Pumping Plant to pump water for both the CVP and the EWA, to be shared between them on a 50-50 basis. The CVP water could be either from storage or from its Delta water rights to divert unstored water. The EWA water could be either from non-SWP/CVP water acquired north of the Delta or stored or unstored water pumped under CVP or SWP water rights. If either the CVP or EWA is demand-limited[4], the other's use of Joint Point will not count against its 50 percent share.

Use of excess capacity at Banks for the EWA and CVP will take precedence over all other non-SWP pumping, except for wheeling water to respond to facility outages and wheeling to supply CVP contractors for whom the SWP has traditionally wheeled CVP water. The relative priority of Level 4 refuge water is currently being determined.

iii. SWP Appropriation of Unregulated Flow.

The SWP may use its Delta diversion rights to pump water from the Delta for EWA purposes when the demand for SWP supplies is less than the available supply. The SWP diversion rights would be used in cases where Joint Point could also be used but where it would be preferable to create EWA assets south of the Delta to offset SWP rather than CVP losses to

[3] The term joint point is used here to refer primarily to the use of the SWP point of diversion alone, and specifically, to the wheeling of EWA as well as CVP water.

[4] Demand-limited- A project is demand-limited if no contractors want any more water than they are currently receiving, and if available storage facilities and/or conveyance facilities are full.

operational curtailments. As an adjunct to Joint Point, it would simply utilize SWP rather than CVP water rights to pump excess flows for the EWA's share. It would not affect the CVP's own share of excess SWP capacity.

iv. SWP/CVP Pumping made Possible by Regulatory Relaxation

(a) Relaxation of the Section 10 Constraint

The SWP is limited under Section 10 of the Rivers and Harbors Act[5], pursuant to US Army Corps of Engineers (Corps) Public Notice 5829-A, to a three-day average rate of diversion of water into Clifton Court Forebay of 13,250 acre-feet per day. This is equal to an average, around the clock diversion rate of 6,680 cfs. This rate may be increased during winter months when the San Joaquin River flow is above 1,000 cfs.

The Corps granted permission to the SWP to increase the base diversion rate by the equivalent of 500 cfs to an average of 7,180 cfs for the months of July through September, through 2002. This 500 cfs will be dedicated to pumping for the EWA.

(b) Relaxation of the Export/Inflow Ratio

Under D-1641[6], and anticipated under the SWRCB order to be issued upon completion of the Bay-Delta water rights hearing, SWP/CVP exports are limited at different times of the year to a certain percentage of Delta inflow (usually 35 or 65 percent). This limitation is called the Export/Inflow, or E/I ratio. Both D-1641 and the 1995 Water Quality Control Plan, consistent with the 1994 Principles for Agreement (Bay-Delta Accord) allow for these ratios to be relaxed upon the meeting of certain requirements. Relaxation of the E/I ratio will be sought as appropriate and used to create EWA assets south of the Delta. By relaxing the E/I ratio, up to 20,000 acre-feet could be exported for the EWA. This water would be exported by the SWP and held in San Luis Reservoir for later use.

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[5] Section 10 of the Rivers and Harbors Act prohibits the obstruction or alteration of navigable waters of the U.S. without a permit from the Army Corps of Engineers. Under Section 10, the Corps regulates projects or construction of structures that could interfere with navigation. A Department of the Army permit is needed to construct any structure on any navigable water of the United States, to excavate or deposit material in such waters, or to do any work affecting the course, location, condition, or physical capacity of such waters.

[6] D-1641-The State Water Resources Control Board issued Decision 1641 on December 29, 1999. The order requires the Project Agencies maintain their respective outflow standards until November 30, 2001 or until the Board adopts a further decision during its water rights hearings. It is currently in litigation, but the project agencies continue to voluntarily comply with the standards.

The decisions for implementation of EWA actions and using the various EWA assets will be coordinated through the CALFED Operations Group. The Ops Group will be used to report regularly on the EWA's operations, to help resolve issues that may arise, and to communicate to stakeholders. In addition, staff for the Management and Project Agencies are developing protocols for use of EWA assets. The CALFED Science Program has convened a scientific panel that reviews the EWA operations on an annual basis. The Management Agencies and the Project Agencies will keep this panel informed on a monthly basis through the CALFED Ops Group reporting process.

2. Banking of EWA Assets

A. Generally

Banking is the storage of water for later use that otherwise would be used or lost in the present. Water can be banked and used within the same water year or carried over for use in a subsequent water year. Even though the acquisition of stored water does not convert a transitory asset into a durable asset, banking is included as an EWA transaction. Like the acquisition of assets, banking transactions must provide for access to and the release of the stored EWA assets to the SWP/CVP.

The provisions of the banking document generally will control priority of EWA assets in storage. Unless the Management Agencies and the Project Agencies make other arrangements, EWA assets will have a lower priority for storage in SWP/CVP reservoirs than SWP/CVP water and thus will spill first. SWP/CVP reservoirs are operated for SWP/CVP purposes such as flood control, downstream temperature control, minimum downstream flows for fish, meeting regulatory requirements, and providing contract water supply including contractor carryover water.

B. Banking in SWP/CVP Reservoirs

EWA assets may be stored or “banked” in SWP/CVP reservoirs upstream of the Delta as well as in San Luis Reservoir provided the SWP/CVP do not incur any additional adverse operational impacts. The EWA will share this lower storage priority with water acquired for Level 4 refuge needs. The Project and Management Agencies shall jointly establish reasonable and practical standards for determining when an EWA asset may be stored and when it would spill or be lost from upstream SWP/CVP storage.

Banking EWA water south of the Delta will be important because it creates highly reliable assets which are both durable and which may be released without Delta constraints being an issue.

C. Groundwater Banking

At times, the EWA may bank surface water within existing groundwater banks to prevent loss by spilling from SWP/CVP reservoirs. Usually, if imported water is physically stored in a groundwater basin, the storing agency will have a first and exclusive right to the water stored.

D. Source-Shifting Agreements

The purpose of water banking is to have water available for use at a time other than its original availability. Source-shifting agreements fall under this functional definition of "banking". Source-shifting agreements are executed with a water agency that is able, at certain times, to call on non-Delta water sources to temporarily create an asset for use by the EWA. In these cases, the water agency is agreeing to a reduction in deliveries so these assets can be used for EWA operational curtailments. Replacement of the source-shifted water occurs at a mutually agreed upon time with the water agency without any incremental impacts to the SWP/CVP.

The proposed source-shifting agreement with Metropolitan is an example of such a banking arrangement. Metropolitan will defer up to 200,000 acre-feet for use by the EWA, which will help provide assurance that SWP and CVP water deliveries and operations will not be adversely affected by EWA operations.

3. Borrowing

Borrowing agreements will allow the EWA to borrow water from the CVP and SWP for fish protection during a water year as long as the water can be repaid without affecting the current or following year's allocations. Borrowing of SWP/CVP water, specifically water in San Luis Reservoir, is intended to enhance the effectiveness and use of EWA assets. SWP/CVP water in San Luis Reservoir may be borrowed to support an operational curtailment in lieu of immediately releasing an EWA asset when the borrowed water is not needed at that time to make SWP/CVP deliveries. Borrowing can only take place when the borrowed water would not create or exacerbate water quality and supply problems associated with the San Luis low point, and it meets reasonable carryover storage objectives.

An appropriate EWA asset will be pledged to assure that, if the borrowed water is not otherwise made up, release of the pledged asset will not cause SWP/CVP deliveries to be affected by the borrowing transaction.

4. Transfers Using Delta Conveyance

Transfers will be used to create assets south of the Delta from assets upstream of the Delta. They can also be used to make acquisitions south of the Delta suitable for release to SWP/CVP use, where a change in the legal place or purpose of use or point of diversion of the water is needed.

Overview of 2002 Proposed Purchases

Assets acquired for the EWA will vary from year to year depending on hydrologic and regulatory conditions, and are therefore not certain. The EWA will be in effect for the first four years of Stage 1[7] of the CALFED Bay-Delta Program. The Project Agencies will enter into one-year contracts with willing sellers, until such time that long-term contracts can be instituted. During 2001, the first year of EWA's operation, State funds and State facilities were used to create an operable EWA. During years two through four, both federal and State actions will be required to maintain the EWA. Currently, an environmental impact statement/report is being prepared to evaluate the various alternatives of a long-term EWA Program.

The EWA will expire in 2004 unless the program is extended by written agreement between the Management Agencies and Project Agencies. Before the EWA expires, the Management Agencies and Project Agencies will assess the success of EWA operations and analyze the potential impacts of new facilities and expanded conveyance capacity. The Agencies will determine the appropriate size and composition of an EWA, as well as EWA's appropriate share of the benefits from new facilities, in the fifth and future years.

In 2002, the EWA expects to make relatively small changes in the overall operations of the SWP, the CVP, and certain local and regional water agencies. The CALFED Record of Decision called for purchases of approximately 185,000 acre-feet annually with the one-time purchase of 200,000 acre-feet for an operational reserve. In addition, the ROD called for the EWA agencies to contract for the right to 100,000 acre-feet of source shifting each year.

Total target EWA water acquisition for 2002 is about 350,000 acre-feet. Upstream acquisitions could range from approximately 40,000 acre-feet to 250,000 acre-feet depending upon hydrology. Purchases from the export area could range from 0 to 210,000 acre-feet depending upon hydrology. The EWA also has a carryover surface supply of 61,000 acre-feet from 2001.

Scheduling Use of EWA Assets during Water Year 2002

The timing of occurrence of targeted fishery resources within the affected streams will depend on a number of environmental factors (photoperiod, Delta outflow, temperature, etc). The periods of greatest vulnerability to aquatic resources in the Delta vary from year to year. Coordination through the CALFED Operations Group[8] and the (b)(2)

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[7] Stage 1 implementation covers the first seven years of implementation of the CALFED 30-year program and builds the foundation for long-term actions. The Stage 1 actions to implement the Preferred Program Alternative are described in the Record of Decision. These actions are dependent upon subsequent project-specific environmental analyses as well as on subsequent review of financial and legislative proposals by the State and Federal executive branches, Congress and the State Legislature.

[8] CALFED Operations Group: The CALFED Ops group is charged with coordinating the operation of the water projects with requirements of the CALFED Framework Agreement, the December 15, 1994 Principles of Agreement for the Bay-Delta Estuary and the State Water Resources Control Board Water Right decision 95-6. DWR, USBR, NMFS, USFWS, EPA, DFG and SWRCB staff comprise the Ops group.

Implementation Team[9] meetings will be conducted as needed to optimize all environmental water for fishery benefits. Using an adaptive management approach, EWA assets will be scheduled by the Management Agencies in coordination with the Project Agencies. Decisions designed to protect species such as chinook salmon, delta smelt, and splittail will be made based on real-time assessments of relative risk and benefit.

CEQA/NEPA Compliance

The California Environmental Quality Act, California Public Resources Code sections 21000 *et seq*. (CEQA) requires that prior to deciding to implement a project, environmental effects of the project must be described and appropriately addressed. CEQA provides for tiering environmental documents. This document tiers from the CALFED Programmatic Environmental Impact Statement/Environmental Impact Report (PEIS/EIR), has considered the information, analysis and conclusions of the PEIS/EIR, and incorporates the PEIS/EIR by reference.

The Management Agencies and Project Agencies will evaluate the acquisition of EWA assets in 2002 using any of the following types of environmental documents: Initial Study/Environmental Assessment leading to Negative Declaration or Mitigated Negative Declaration/Finding of No Significant Impact, EIR/EIS, or Categorical Exemption or Exclusions. The Management Agencies and Project Agencies will also prepare an EIS/EIR to assess the overall EWA program and its implementation. This Initial Study and proposed Negative Declaration were prepared to comply with the provisions of CEQA and the State CEQA Guidelines. After independent review of this CEQA document to ensure that all NEPA and Reclamation procedures relating to EAs have been met, Reclamation may adopt the Initial Study as an EA and issue a FONSI.

This Initial Study for source shifting water between the Department and Metropolitan cover only a short-term (one year) action, and enables the EWA to meet its 2002 objectives. Because the proposed action is short-term and has independent utility, it does not prejudice any final determinations on the EWA as a whole or limit any decisions that may be made in the forthcoming EWA program EIS/EIR.

The purpose of this Initial Study is to provide decision makers, public agencies, and the general public with an objective and informative document that fully discloses any potential impacts (including mitigation associated with impacts) that could be made by the Project. All phases of project planning, implementation, and operation were considered in the Initial Study of this Project. The following explanation is provided to assist the reader in locating the sections where these subjects are discussed. The Project Description Section discusses actions to be taken to secure a particular water supply as part of the EWA. The Project Location Section describes the major Project features. Environmental Setting and Potential Environmental Impacts Section describes

[9] (b)(2) Implementation Team: The (b)(2) Implementation Team implements the Central Valley Project Improvement Act Section 3406 (b)(2) reallocating 800,000 acre-feet of water for environmental purposes. Representatives of the USBR, USFWS, NMFS, DFG and DWR serve on the team.

the existing environmental resources and analyzes potential impacts of the Project on those resources.

II. PROJECT DESCRIPTION

Metropolitan will provide up to 200,000 acre-feet of SWP entitlement water to the EWA in a source-shifting agreement in 2002. The water will be divided into two categories: Initial Water and Additional Water. Metropolitan would defer delivery of at least 100,000 acre-feet of water (Initial Water), if requested by the Department as the contracting agent for the EWA. If Metropolitan's SWP allocation is sufficiently large as of April 30, 2002 to provide increased flexibility in Metropolitan's requested schedule, Metropolitan may defer up to an additional 100,000 acre-feet of water (Additional Water). The source-shifted water may be deferred at a maximum rate of 25,000 acre-feet per month from January 1 through August 31, 2002 unless the schedule is changed by mutual agreement of the Department and Metropolitan. During the time that Metropolitan is deferring water, Metropolitan will rely upon local sources of water.

The Department will return the Initial Water by December 31, 2002 and Additional Water by April 1, 2003 unless the Department and Metropolitan mutually agree to adjust these limitations. The Department may instead pay fees to defer return of the water or pay replacement costs for Metropolitan's purchase of replacement water. This will depend upon water supply conditions and water demand. The Department will provide Metropolitan with a preliminary water repayment schedule on May 1, 2002 and an updated water repayment schedule on September 15, 2002. Because the Project costs will be paid for with non-contractor funds, neither Metropolitan nor other SWP or CVP contractors will incur increased costs because of the EWA Program nor will there be an increased incremental cost upon the SWP or CVP.

The Department will attempt to repay water delivered to Metropolitan with at least the same quality or better as the water deferred during the April through September 2002 deferral period. The water deferred due to this Project will increase San Luis Reservoir levels during the summer to keep the reservoir from dropping below a level that causes water quality degradation in the reservoir or jeopardizes the Project Agencies' ability to pump water from the reservoir to meet contractor requests.

Metropolitan will not receive more water than its contractual entitlement because of the Project nor will it increase its SWP delivery request as a result of this Project. The Department and Metropolitan have agreed that the Project will not alter the timing or amounts of SWP and CVP water available to other contractors. Also the water levels in the SWP, CVP and Metropolitan supply reservoirs will remain within the normal operational levels with the Project.

III. PROJECT LOCATION

Metropolitan Water District of Southern California

Metropolitan was formed in 1928 under an enabling act of the California State Legislature. Historically, Metropolitan has provided supplemental water to the Southern California coastal plain. Metropolitan's deliveries augment local water supplies developed through surface catchment, groundwater production, and water reclamation. This supplemental water is delivered to Metropolitan's 26 member agencies through a regional network of canals, pipelines, reservoirs, treatment plants, and related facilities.

Metropolitan's 5,135-square-mile service area covers portions of the six-county region of Ventura, Los Angeles, Orange, Riverside, San Bernardino, and San Diego counties. Metropolitan currently provides approximately 65 percent of the total water used in its service area. Metropolitan serves a population of approximately 17 million in its service area.

SWP water is delivered to the Metropolitan service area from northern California sources via the California Aqueduct to terminal reservoirs such as Pyramid Lake, Castaic Lake, Silverwood Lake, and Lake Perris. Other water supplies include Colorado River Aqueduct, local groundwater supplies, reservoirs and reclamation. Water is delivered to Metropolitan's 26 member agencies through a regional network of canals, pipelines, reservoirs, treatment plants, and related facilities.

Metropolitan's SWP entitlement[10] is 2.01 million acre-feet of water per year. Metropolitan has requested 1.8 million acre-feet for the 2002 calendar year. Impacts with filling the Diamond Valley Reservoir with SWP water and other sources were addressed in the 1991 Eastside (now called Diamond Valley) Reservoir Environmental Impact Report.

State Water Project

The SWP includes 29 storage facilities, 18 pumping plants, 4 pumping-generating plants, 5 hydroelectric power plants and approximately 660 miles of canals and pipelines. Its main purpose is water supply; that is, to divert and store surplus water during wet periods and distribute it to areas of need in Northern California, the San Francisco Bay area, the San Joaquin Valley, the Central Coast, and Southern California. Other project purposes include flood control, power generation, recreation, fish and wildlife enhancement, and water quality improvement in the Sacramento San Joaquin Delta.

[10] SWP entitlement: SWP water supply contracts signed in the 1960s included an estimate of the amount of water the agency could expect to be delivered annually (annual entitlement). That amount was designed to increase gradually until the maximum amount of annual entitlement was reached, assuming full development of the SWP.

Twenty-nine urban and agricultural water agencies have long-term contracts for an ultimate total of just over 4 million acre-feet per year of water from the State Water Project. Figures 1 and 2 show major State Water Project features and contracting agencies, respectively.

Central Valley Project

Reclamation's CVP provides water to 290 water contractors throughout Northern California, the Central Valley, and eastern regions of the greater San Francisco Bay area. Consisting of 20 storage reservoirs, which have the combined capacity of storing 11 million acre-feet, 11 power plants, 500 miles of canals or aqueducts, three fish hatcheries, plus assorted tunnels, conduits, and power grids and distribution systems. The majority (85 percent) of CVP water delivered is for agricultural irrigation purposes; the remainder (15 percent) is for municipal and industrial users. In addition to providing water, CVP facilities provide other important benefits including flood protection; power production; water quality improvement; groundwater overdraft protection; environmental preservation and restoration for anadromous fish, wildlife refuges, and instream flows; and salinity intrusion prevention. Annually, the CVP stores and distributes approximately 20 percent of the State's developed water (7 million acre-feet), and generates more than 5 billion kilowatt hours of energy.

San Luis Reservoir

The San Luis Reservoir, part of the State-federal San Luis Joint-Use Complex, is located in the eastern foothills of the Diablo Mountain Range in central California. The Reservoir holds water diverted from the Sacramento-San Joaquin River Delta for subsequent delivery to CVP and SWP contractors in the San Joaquin Valley, Southern California, and the federal San Felipe Project. The San Luis Reservoir can store a total of approximately 2 million acre-feet, of which approximately 1 million acre-feet is the State's share.

The Department pumps water as it is available for diversion from the Delta and delivers it directly to SWP contractors and/or stores it in the San Luis Reservoir for later delivery. San Luis Reservoir water is used to supplement other Project water during periods of constrained operations in the Delta and when demands exceed maximum capacity at Banks Pumping Plant.

California Aqueduct

The California Aqueduct is the main conveyance facility of the SWP. It conveys water from the Banks Pumping Plant at Clifton Court Forebay in the southern portion of the Delta to SWP water contractors located in the South Bay, San Joaquin Valley and Southern California.

Figure 1. State Water Project Features

Figure 2. State Water Contractors

Southern California Reservoirs

Available capacity in the Department's and Metropolitan's reservoirs in Southern California is approximately 1,752,000 acre-feet of which approximately 1,671,000 acre-feet is usable.

Diamond Valley Reservoir

The Diamond Valley Lake Reservoir will hold up to 800,000 acre-feet of water nearly doubling the region's surface water storage capacity. It was dedicated on March 18, 2000 and will take up to three years to fill. It is currently about two-thirds full. Diamond Valley Lake Reservoir receives water from the Colorado River Aqueduct delivered through the San Diego Canal into the reservoir forebay. SWP water will either be delivered from the Santa Ana Valley Pipeline and bypassed around Lake Perris, or taken from Lake Perris and conveyed through Metropolitan's system into the reservoir forebay.

Castaic Reservoir

The Castaic Dam and Lake facility is located about 45 miles northwest of Los Angeles and about 2 miles north of the community of Castaic. The purposes of Castaic Lake is: (a) provide emergency storage in the event of a shutdown of the California Aqueduct to the north, assuring water deliveries to the West Branch water users; (b) to act as regulatory storage for deliveries during normal operation; (c) to provide a setting for recreational development by state and local agencies for the Southern California area; and (d) to provide some flood control. Castaic Lake which receives water from Pyramid Lake to the north, is the final reservoir on the West Branch of the SWP. It provides a major source of water to the Castaic Lake Water Agency and to the western part of the service area of Metropolitan.

Castaic Reservoir has a capacity of 324,000 acre-feet. Castaic Lake is cycled annually, generally peaking in end-of-month storage in March, with drawdown taking place through the following months until a low is reached usually in October. From this low point, the reservoir is filled to attain a high point again in March.

Pyramid Lake

Pyramid Lake is located in the Angeles and Los Padres National Forests, about 60 miles northwest of downtown Los Angeles. Operated by the Department, Pyramid Lake stores water for delivery to Los Angeles and other coastal cities of Southern California. It also provides regulated storage for Castaic Powerplant, flood protection along Piru Creek which it dams, and recreational opportunities. Pyramid Lake has a capacity of 171,200 acre-feet. The Department owns and operates the Warne Powerplant, located on the Gorman Creek arm of the lake. The Powerplant helps meet the SWP's need for electricity. Water flowing from Pyramid Lake through the Angeles Tunnel spins turbines in Castaic Powerplant. The tunnel carries water on its way to Castaic Lake, the final Project reservoir on the SWP's West Branch. Castaic Powerplant is a cooperative venture of the Department and the City of Los Angeles Department of Water and Power. Castaic Powerplant generates electricity during on-peak periods when extra power is

needed in the Los Angeles area. During off-peak periods when local power is cheaper, the plant pumps water back into Pyramid Lake.

Lake Perris

Lake Perris is situated about 11 miles southeast of Riverside and 60 miles southeast of downtown Los Angeles. Completed in 1974, Lake Perris is a multipurpose facility providing water supply, recreation and fish and wildlife enhancement. The lake is the southern terminus of the SWP's East Branch of the California Aqueduct and is operated by the Department. The lake has a capacity of 131,450 acre-feet.

Silverwood Lake

Silverwood Lake is located 30 miles north of the city of San Bernardino, and is operated by the Department. Water reaches Silverwood from the East Branch of the California Aqueduct. Water is pumped up from the Antelope Valley floor to the Pearblossom Pumping Plant east of Palmdale. Water flows though the Mojave Siphon Powerplant and into Silverwood lake. The reservoir provides regulatory and emergency water storage. Recreational activities at Lake Perris include swimming, boating, waterskiing, fishing, hiking, camping, picnicking, and bicycling.

Arvin-Edison Water Storage District

The Arvin-Edison Water Storage District in Kern County manages the delivery of local groundwater and water imported into its service area from the Central Valley Project's Millerton Reservoir via the Friant-Kern Canal. The service area consists of 132,000 acres of predominantly agricultural land use, and to a minor degree, municipal and industrial uses. Arvin-Edison operates its supplies conjunctively, storing water in the underlying aquifer when imported supplies are plentiful and withdrawing that water when the availability of imported supplies are reduced. In the 1970s, Arvin-Edison entered into a number of agreements, jointly known as the Cross Valley Canal Exchange. This allows Arvin-Edison to schedule water deliveries through the California Aqueduct.

The contract between Arvin-Edison and Metropolitan extends the current operations to allow Metropolitan to make use of the additional storage in Arvin-Edison's groundwater basin. The Arvin-Edison Water Management Project Negative Declaration (May 1996) is hereby incorporated by reference. In years of plentiful supply, Metropolitan uses SWP supplies available above its current demands to deliver water to Arvin-Edison through the California Aqueduct. Some of this water is stored in the aquifer through spreading basins, and the remainder is delivered directly to Arvin-Edison farmers. These farmers would otherwise have used water from the groundwater basin, so this in-lieu use is another mechanism for storing water within the aquifer. During dry years, a portion of Arvin-Edison's CVP entitlements is diverted for delivery to Metropolitan through the California Aqueduct.

Metropolitan has the right to store 250,000 acre-feet in the groundwater basin underlying Arvin-Edison. Up to 350,000 acre-feet can be stored at Arvin-Edison's discretion. As of October 2001, approximately 240,000 acre-feet are stored in Arvin-Edison for

Metropolitan. Maximum withdrawal amounts range from 40,000 acre-feet to 75,000 acre-feet per year, depending on operational constraints.

Semitropic Water Storage District

Metropolitan also stores SWP entitlement water in Semitropic's groundwater basin. Semitropic obtains water from the SWP through its contracts with Kern County Water Agency. Semitropic's defined capacity is 1,000,000 acre-feet of which Metropolitan has contracted for 350,000 acre-feet. This document incorporates the Semitropic Groundwater Banking Project Environmental Impact Report (July 1994) by reference. As of October 2001, Metropolitan had approximately 360,000 acre-feet stored in Semitropic. The maximum withdrawal amounts in one year range from 31,500 to 170,000 acre-feet depending upon other water deliveries scheduled during that year.

IV. ENVIRONMENTAL SETTING AND POTENTIAL ENVIRONMENTAL IMPACTS

The environmental setting and potential environmental impacts of this Project are discussed below. The Project does not include any new construction of water facilities, infrastructure, or any other type of construction or land disturbance. The Project, therefore, will not have any impact on cultural resources, hazards and hazardous materials, mineral resources, noise, transportation/traffic and utilities and service systems (Environmental Checklist, Appendix A). These categories are eliminated from the discussion below. Potentially affected environmental resources could include air quality, biological resources, and water quality from reduced reservoir levels. These impacts are evaluated below and judged to be less than significant impacts. In addition to providing several fish protection measures, the Project provides improvements in water supply reliability and water quality to the SWP and CVP, which will not result in any increased water supplies for SWP or CVP users. Hence, the Project will not result in any growth inducing impacts.

Aesthetics

The source shifting agreement will not affect aesthetics because water levels in Southern California reservoirs, San Luis Reservoir and the California aqueduct will remain within normal operating levels. Because the deferred water will be stored in San Luis Reservoir through August, when low reservoir levels often lead to algal problems, the Project will result in improved aesthetic conditions in San Luis Reservoir throughout the summer.

Impacts: None.

Agricultural Resources

Water levels in San Luis Reservoir and the California Aqueduct will remain within normal operating levels with this Project. In addition, there are adequate supplies in the Metropolitan service area to replace the import of water January-August 2002 for Metropolitan customers. Other water agencies will not be affected.

Impacts: None.

Air Quality

Air quality in the Southern California region is poor. The South Coast Air Basin is in nonattainment for several EPA air quality standards. Air quality can be affected by such activities as construction, erosion, and increased emissions due to electrical power generation.

Impacts: None. There will be no construction related to this Project, and therefore no construction related effects on air quality. Water levels in Metropolitan service area reservoirs and groundwater sources, San Luis Reservoir and the California

Aqueduct will be within the range of normal operating conditions and therefore, will not create dust problems nor affect air quality. Power requirements to move water and for groundwater pumping should be less than significant (see Energy and Power section), resulting in a less than significant effect on air quality.

Biological Resources

Biological resources associated with this Project include the same biological resources found at Southern California reservoirs and groundwater storage facilities.

Impacts: None. Biological resources will not be affected by this Project because, although the timing of the delivery of SWP entitlement water is changed, water levels in affected reservoirs and the aqueduct will be within the range of normal operating conditions. Water may be diverted from Diamond Valley Lake for Metropolitan's use; however, since Diamond Valley Lake is still in the process of filling, there will be no effect on biological resources. The Project will provide water to EWA that will be managed to produce beneficial effects on fisheries in the Sacramento/San Joaquin River systems.

Economic Impacts

Economic effects of the Project could include costs of the Project itself (including power costs) or secondary effects on the economy and water markets. The Project Agencies will use non-SWP and non-CVP funds to pay for the Project. Power or water costs would depend upon many factors including energy costs, water availability, weather patterns and cumulative effects of water transfers.

The Department and Metropolitan will cooperatively develop preliminary cost projections for the Project by May 1, 2002 and updated cost projections by September 15, 2002. After developing estimates of the cost to the SWP of operating the EWA program, including power costs, the Project Agencies will recover total transfer costs from non-SWP and non-CVP funds from the CALFED program or other non-SWP and non-CVP funds.

Impacts: None. The Project Agencies have committed to fund the EWA from non-project sources. Power costs are expected to be less than significant since power usage will be reduced during the summer when power costs are highest. The Southern California economy will not be affected by the Project because Metropolitan has adequate supplies to ensure that there will be no change in water availability for businesses dependent upon water. No additional development will result from the increased water supplies because Metropolitan will receive no more than its SWP entitlement.

Energy and Power

There will be no increases in energy and power requirements as detailed below under Water Transport and Groundwater Pumping. The effects of the Project on energy generation potential will also be minimal. Diamond Valley Lake has just recently installed energy generation facilities and is in the process of installing more of those facilities. Water diverted from Diamond Valley Lake may reduce the potential for these facilities to produce energy. However since these facilities represent a new energy source that is just being developed, any environmental effect should be minimal. Also when the water is paid back to Metropolitan, it is expected that the water will be stored in Diamond Valley Lake and that energy can be generated at that time.

Water Transport: The total SWP entitlement delivered to Metropolitan will not change as a result of this Project. Therefore, there should be no net increase in energy use to transport the water. In fact, because Metropolitan will defer delivery of water during summer 2002 (the peak energy season), there should be a beneficial effect on the energy market. Energy use in the Metropolitan service area will not be affected significantly because Metropolitan will be temporarily substituting local sources that do not have to be transported long distances.

Groundwater Pumping: Metropolitan does not plan to increase substantially the use of groundwater for 2002. Therefore, energy consumption from groundwater extraction will not be a significant environmental effect.

Impacts: None.

Environmental Justice

Environmental justice is a term that refers to the fair treatment of people of all races, cultures, and income levels with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Executive Order 12898, issued by President Clinton in 1994, requires federal government agencies to consider the potential for their actions or policies to place disproportionately high adverse human health or environmental effects on minority and low-income populations. The federal executive order was a response to a 1992 U.S. Environmental Protection Agency (EPA) report which revealed that minority and low-income populations bear a disproportionate share of the burdens of air, pollution, hazardous waste facilities, and other forms of environmental pollution. The executive order requires executive agencies to adopt an environmental justice strategy, creates the Interagency Working Group on Environmental Justice, encourages public participation to resolve the issue, and requires further research on environmental inequities.

Similar environmental justice coordination and consultation requirements have been enacted into law recently in California. Government Code Section 65040.12 defines environmental justice and establishes the Governor's Office of Planning and Research as the coordinating agency in State government for environmental justice programs.

Section 65040.12 requires the Director of OPR to consult with the Secretaries of California Environmental Protection Agency (Cal EPA), the Resources Agency, the Trade and Commerce Agency, and other State agencies, as well as with the Working Group on Environmental Justice to be established by Cal EPA, to address environmental justice. Public Resources Code Section 72000 *et seq.* requires the Cal EPA Secretary to take specified actions to promote environmental justice in designing its mission for programs, policies, and standards. Among its major provisions, the statute requires Cal EPA to develop a model environmental justice mission statement for boards, departments, and offices within Cal EPA, to improve research and data collection relative to environmental justice issues, and to ensure greater public participation in the development, adoption and implementation of environmental regulations and policies. Section 72002 requires the Cal EPA Secretary to convene a Working Group on Environmental Justice on or before January 15, 2002 to assist Cal EPA, as specified, in the development of an agencywide environmental justice strategy. The Agency is also required to coordinate and share information with the U.S. EPA with respect to environmental justice.

Impacts: None. This Project will not disproportionately affect minority or low income populations since Metropolitan has adequate water supplies to supply the local Southern California population. In addition, Metropolitan's groundwater sources would not be used to the extent that there would be environmental effects on rural agricultural populations. Metropolitan will not increase its costs of water delivery to member water agencies because of this Project. All costs associated with the Project will be from sources not specific to the Metropolitan service area.

Geology and Soils

There will be no fluctuating water levels that might result in erosion. If water is diverted from Diamond Valley Lake, this will not affect area soils because Diamond Valley Lake is still in the process of filling. Any groundwater extraction will be monitored to avoid land subsidence. Most of Southern California is seismically active, though there will be no significant changes in reservoir water levels that would result in seismic hazards.

Impacts: None.

Indian Trust Assets

All federal agencies have a responsibility to protect Indian Trust assets. Indian Trust assets are legal interests in assets held in trust by the federal government for Indian tribes or individuals. Assets may be owned property, physical assets, intangible property rights, a lease, or the right to use something. Indian Trust assets may be located both on and off Indian reservations and typically include lands, minerals, water rights, hunting and fishing rights, natural resources, money, and claims. Indian Trust assets do not include properties in which a tribe or individual has no legal interest, such as certain off-reservation sacred lands. Indian Trust assets cannot be sold, leased, or alienated or

otherwise have their value reduced without approval from the United States through the Bureau of Indian Affairs.

Impacts: None. This project does not involve construction or changes in water allocation that might affect an Indian Trust asset.

Water Resources

Water Supply and Hydrology

The overall quantity of water delivered to Metropolitan will not change with this proposed Project; only the timing of the delivered water will change. The Department plans to operate the SWP such that there will be no reductions, beyond existing regulatory levels, in deliveries to other State and federal project water users. This commitment is based on the fishery benefits of existing federal regulation, the assets in the EWA, the benefits of the Ecosystem Restoration Program, and the commitment and ability of the CALFED agencies to make additional water available should it be needed.

Metropolitan's Water Delivery Schedule

On October 1, 2001, Metropolitan requested delivery of 1.8 million acre-feet of its full 2.011 million acre-feet SWP entitlement for the calendar year 2002. This request for water is based on local hydrology, consumptive demands, storage demands, and Metropolitan's other water supplies. For example, in a dry year, the SWP allocation may be low thus reducing the amount of water available to meet Metropolitan's demands and reducing Metropolitan's flexibility to manage its water supplies to defer water. On the other hand, in wetter years, the SWP allocation may be higher, increasing the Metropolitan's flexibility to manage its distribution system; therefore, Metropolitan may be able to make more water available to this proposed program when conditions are wetter.

Tables 1 and 2 show hypothetical results of deferral and payback of EWA water under a dry year scenario (50 percent SWP allocation) and a wet year scenario (100 percent SWP allocation), respectively.

Table 1. Hypothetical results of deferral and payback of EWA water under a dry year scenario (50% SWP allocation)

Dry Year	Example of Potential Water Deferred and Metropolitan's 2002 SWP Deliveries with and without Proposed Project												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF
Potential Water Deferred	25,000	25,000	25,000	25,000	0	0	0	0	0	0	0	0	100,000
Potential Payback	0	0	0	0	0	0	0	0	25,000	25,000	25,000	25,000	100,000
Without proposed Project[11]	95,226	100,103	88,991	99,087	96,751	81,868	118,437	102,475	74,266	87,320	81,864	79,364	1,105,752
With proposed Project	70,226	75,103	63,991	74,087	96,751	81,868	118,437	102,475	99,266	112,320	106,864	104,364	1,105,752

Table 2. Hypothetical results of deferral and payback of EWA water under a wet year scenario (100% SWP allocation)

Wet Year	Example of Potential Water Deferred and Metropolitan's 2002 SWP Deliveries with and without Proposed Project												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF
Potential Water Deferred	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	0	0	0	0	200,000
Potential Payback*	0	0	0	0	0	0	0	0	25,000	25,000	25,000	25,000	100,000
Without proposed Project	175,381	120,640	122,533	139,994	116,844	122,043	135,962	139,671	130,864	147,084	138,877	130,271	1,620,164
With proposed Project[12]	150,381	95,640	97,533	114,994	91,844	97,043	110,962	114,671	155,864	172,084	163,877	155,271	1,520,164

*The 100,000 AF Additional Water would be paid back in 2003 for which no water supply forecasts are yet available and are not shown on this chart.

[11] January is 100% 2001 Extended Carryover water, February 4,774 AF is 2001 Extended Carryover water.

[12] First 100,000 AF of deferred water must be returned by December 31, 2002, second 100,000 AF can be returned through March 2003.

Metropolitan Water Supply Options

Over the past ten years, Metropolitan has annually received approximately 0.6-1.5 million acre-feet from the SWP and 1.0-1.3 million acre-feet from the Colorado River Aqueduct. Metropolitan has approximately 2.5 million acre-feet of surface reservoir and groundwater storage capacity (Table 3). Water is also made available through recycling, reuse and water conservation. Metropolitan's regional water supply is approximately 3.5-4.2 million acre-feet in total. About 90% of this supply is used for municipal and industrial purposes, while about 10% is used for agriculture. Current Metropolitan water storage in Semitropic Groundwater Bank is 360,000 acre-feet and 240,000 acre-feet in Arvin-Edison Groundwater Bank.

Table 3. Surface and Groundwater Storage Facilities

Storage Facility	Capacity (AF)
Surface Reservoirs	
Castaic Lake	323,700
Lake Mathews	182,000
Pyramid Lake	171,200
Lake Perris	131,500
Silverwood Lake	73,000
Lake Skinner	44,000
Diamond Valley Lake[13]	800,000
Total	1,725,400
Groundwater Storage[14]	
Semitropic	392,192 (31,000-170,000)
Arvin-Edison	250,000[15] (40,000-75,000)
Total	777,200
Total Storage	2,502,592

Metropolitan Water Demand

Water demand for the Metropolitan service area was approximately 3.830 million acre-feet for the year 2000 and is estimated to be 4.029 million acre-feet in 2005.

Water Supply Monitoring

All of the potential water supply options available to Metropolitan are subject to monitoring. Department Operations Control Office, for example, monitors water levels, overall storage and stream releases in the Southern California reservoirs: Pyramid, Perris, Silverwood and Castaic. Semitropic and Arvin-Edison have their own groundwater monitoring programs. Diamond Valley Lake reservoir levels are monitored by Metropolitan.

[13] The Diamond Valley Lake capacity is still in the process of filling (it is about two thirds full now) and may or may not be available for use.
[14] The quantities in parentheses show the maximum withdrawal amounts in one year.
[15] This storage may be increased to 350,000 at Arvin-Edison's discretion.

San Luis Reservoir Storage

As a result of the source shift agreement, San Luis Reservoir water levels may increase or decrease at a slower rate depending upon how and when the EWA requests that Metropolitan defer deliveries. Water surface levels in San Luis Reservoir would decrease in response to EWA Delta export cuts or if the EWA delivers water out of San Luis Reservoir to repay past borrowing from Metropolitan, the SWP or the CVP. San Luis Reservoir storage will increase in response to higher Delta exports on behalf of the EWA or due to voluntary shifts in delivery patterns, water purchases in the export area, exchanges, or source shifts. However, San Luis Storage patterns will range within the historical patterns that the CVP and SWP already allowed under existing regulations.

> Impacts: This Project will not impact water supply. Metropolitan has adequate alternative supplies and storage to offset the maximum 200,000 acre-feet of water that is available to be deferred. The relatively small quantity of water being deferred and the large variety of local and other sources for providing a temporary in-lieu supply during the period of deferment ensure that the Project will result in no detectable physical impacts to water resources.

Water Quality

The Department monitors State Water Project water quality to ensure that SWP water quality meets Department of Health Services drinking water standards and Article 19 Water Quality Objectives[16] for long-term SWP contracts. The objective of the SWP water quality monitoring program is to maintain SWP water at a quality acceptable for recreation, agriculture, and public water supply for the present and future under a policy of multiple use of the facilities. These uses included fishing, boating, and water contact sports. The Department analyzes the water for physical parameters such as water temperature, specific conductance, and turbidity and more than 60 different chemical constituents including inorganic chemicals, pesticides, and organic carbon. A list of the Department's water quality locations can be found in Table 4.

Metropolitan ensures the quality of its water supplies as required by Department of Health Services regulations. Metropolitan monitors the quality of its water sources (water before it reaches the water treatment plants), its finished water (water after it has been treated at the water treatment plants), and water within the distribution system. Metropolitan monitors for over 160 contaminants.

Metropolitan requires a SWP supply in order to blend water with higher salinity Colorado River water to achieve salinity goals for its member agencies, and to increase in-basin water recycling and groundwater management programs.

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[16] Article 19 Objectives are included as standard provisions in the Department's water supply contracts. They require the collection and analysis of water quality samples in the SWP and the compilation of records. Article 19 (a) states: "It shall be the objective of the State and the State shall take all reasonable measures to make available, at all delivery structures for the delivery of [SWP] Project water to the District, [SWP] Project water of such quality that the following constituents do not exceed the concentrations stated." The constituents table is in Appendix B.

Table 4. DWR Water Quality Stations

Station Locations
North Bay Aqueduct at Barker Slough Pumping Plant
North Bay Aqueduct at Cordelia Pumping Plant
Clifton Court
Harvey O. Banks Pumping Plant
South Bay Aqueduct at Del Valle
South Bay Aqueduct at Santa Clara Terminal Tank
Ca Aqueduct at Inlet to O'Neill Forebay (Check 12)
San Luis Reservoir - Pacheco Pumping Plant
Ca Aqueduct at Outlet to O'Neill Forbay (Check 13)
Ca Aqueduct near Coalinga (Check 18)
Ca Aqueduct near Kettleman City (Check 21)
Coastal Aqueduct at Check 4
Ca Aqueduct near Hwy. 119 (Check 29)
Ca Aqueduct at Tehachapi Afterbay (Check 41)
MWD Pipeline at Castaic Lake
Mojave Siphon Inlet (Check 66)
Devil Canyon Headworks

For January through August 2002 if Metropolitan defers water for EWA purposes, Metropolitan will replace a portion of its imported SWP water with water from storage reservoirs and other local sources. Metropolitan requires the local sources to meet minimum water quality standards.

Impacts: None. The Department will repay Metropolitan with water of at least the same quality as Metropolitan would have received without the Project. The Project may improve water quality in San Luis Reservoir by providing enough water to avoid “low point”. “Low point” is the low water levels that usually occur in August in San Luis Reservoir, thus increasing algal growth, which can deteriorate water quality. Metropolitan will ensure the quality of local sources of water.

Land Use and Planning

The Project will use existing storage facilities in Southern California to allow for the water deferment. No new facilities will be constructed. The availability and reliability of water supplies will not change.

Impacts: None. Metropolitan has adequate local sources to replace source shifted water so that land use and planning will not be significantly affected. There will be no new development of local supplies associated with this Project. Also, the overall quantity of water available to the Metropolitan service area will

not change. Rather, the source shifting agreement is a change in the timing of the delivery of water. The source shifting agreement will not conflict with local land use plans but use previously established reservoirs and local water sources for existing uses.

Population and Housing

Southern California's population is approximately 19 million people based on information from the 2000 census (Table 5). The population within the Metropolitan service area, which includes portions of some of the counties listed below, is approximately 16.9 million (year 2000 data) and estimated to be 18.0 million in 2005.

Table 5. Current Southern California Population Estimates

County	Census 2000
Los Angeles	9,519,338
Ventura	753,197
San Bernardino	1,709,434
Orange	2,846,289
Riverside	1,545,387
San Diego	2,813,833
Total	19,187,478

Source: California State Department of Finance

Impacts: None. There will be no inducement of population growth and development because there will be no new water supplies with this agreement, and therefore no effects on population and housing.

Public Services

Public services will not be significantly affected by this agreement because Metropolitan has adequate existing water supplies for the January through August 2002 period.

Impacts: None.

Recreation

Castaic Lake, Lake Silverwood, Lake Perris, Pyramid Lake and San Luis Reservoir provide recreation including sailing, water-skiing, power-boating, and fishing as well as camping opportunities. Castaic Lake is primarily known for its largemouth bass fishery. Other species inhabiting Castaic include hatchery-raised rainbow trout, striped bass, bluegill, redear sunfish, white crappie, channel catfish, white catfish, carp, threadfin shad and Mississippi silversides.

Impacts: None. Recreation in San Luis and Southern California reservoirs will not be affected because water levels in these reservoirs will be maintained within normal operating levels.

V. RELATED PROJECTS

The EWA Program for 2002 includes surface water for export, water purchased north of the Delta, stored water and carryover water from 2001. In addition to the EWA, the Department's Dry Year Program and the Critical Water Shortage Contingency Plan, CALFED's Environmental Water Program (EWP) and Reclamation's Central Valley Project Improvement Act (CVPIA) Level 4 Wildlife Refuge Water Purchase Program may need to acquire north of the Delta water supply options during 2002. These efforts, which are described briefly below, will need to be coordinated.

Dry Year Program

In 2001 the Dry Year Program acquired approximately 138,800 acre-feet of water. The 2002 Dry Year Program is seeking to purchase water supply options this fall in anticipation of a possible dry year. The Department will announce the start of the 2002 Dry Year Program by mid-November 2001. The quantity of water to be acquired is unknown and will depend on requests made by participants, if any, in the Program and what options are exercised in their contracts.

Critical Water Shortage Contingency Plan

The Critical Water Shortage Contingency Plan was prepared in response to the commitment in the CALFED ROD that the Governor would convene a panel to develop a "contingency plan to reduce the impacts of critical water shortages primarily for agricultural and urban water users." The plan identified all available resources (e.g., water transfers, water exchanges, groundwater programs, local partnerships), building upon the experience gained with the Governor's Drought Water Bank, to minimize such shortages. The plan also recommended appropriate funding mechanisms. In addition, CALFED agencies committed to facilitate transfers of water and expedite regulatory processes consistent with legal requirements. The Panel is now evaluating the impacts of implementing the plan. The Department is holding a series of public workshops in October-November 2001 for this purpose.

CALFED Environmental Water Program

CALFED's EWP is a water acquisition program with the goal of buying water from willing sellers for augmenting instream flows in tributary streams of the Sacramento and San Joaquin River systems. The EWP intends to initiate pilot water acquisitions projects in up to three tributary watersheds in 2002. The pilot water acquisition projects will serve to provide important information, including biological, hydrological, and economic factors, and the monitoring and tracking of benefits and water. This information will be used in developing and implementing a long-term plan for the EWP. How much water would be acquired and in what watersheds is unknown at this time; however, the EWA will coordinate with the EWP when such information becomes available.

CVPIA Level 4 Wildlife Refuge Water Purchase Program

In 2002, Reclamation will acquire incremental Level 4 Refuge water supplies to meet CVPIA requirements under 3406 (d)(2). For the 2002 Contract Year (March 2001

through February 2002) up to 96,000 acre-feet will be acquired to meet optimum refuge management needs. The actual amount of water to be acquired will be dependent on refuge needs and funding availability. Reclamation is also involved in management and/or acquisition of spring and fall flows in support of the San Joaquin River Agreement and the Vernalis Adaptive Management Plan of up to 184,000 acre-feet of water.

Other Water Transfers

Other water transfers between currently unknown and unidentified parties also may be proposed for 2002. The number and volume of water transfers in 2002 is to a great degree, dependent upon the hydrologic conditions this winter. Consequently, it is too speculative to determine to what degree other transfers will be proposed and implemented.

VI. CUMULATIVE EFFECTS

Representatives from the Project Agencies and the Management Agencies are currently working on the purchase, storage (including water), and source shifting agreements, called for in the ROD. The Project Agencies have held discussions with water users south of the Delta regarding the need to achieve EWA assurances for all water users before significant amounts of water are used to meet the dry year needs of some water users. Currently the State's 2002 Dry Year Water Purchase Program will be open to all public agencies throughout California, including the water users of the CVP south of the Delta. The Department will attempt to structure agreements such that options for both the EWA and Dry Year programs will be transferable between the programs. The EWA agencies also recognize the need to coordinate EWA purchases with CALFED's EWP pilot watershed acquisitions, if applicable, and Reclamation's need to provide supplemental (incremental Level 4) water for National Wildlife refuges and State wildlife management areas.

The Project will not have any cumulative effects on any environmental resource because the source shift action only changes the time in which the water is delivered. No additional quantities of water will be provided to Metropolitan over their approved SWP allotments. Direct effects, if any, from the 2002 Dry Year Water Purchase Program, Level 4 Refuge Water Purchase Program, CALFED's EWP, Critical Water Shortage Contingency Plan and other local water transfer programs will be evaluated separately.

Although there are no anticipated cumulative effects to the Water Supply and Power environmental resource categories, these resource categories are discussed below because many of the related projects may involve changes in the timing of the use of these resources.

Water Supply

The EWA is expected to make relatively small changes in the overall operations of the SWP and CVP facilities. Overall, the EWA should result in beneficial effects including increased instream flows and increased water in San Luis Reservoir. Operational changes in 2002 can be generally characterized as shifts in pumping rates at the SWP Delta diversion pumps, shifts in the storage and release patterns at SWP reservoirs, shifts in groundwater pumping and storage patterns within the KCWA, and shifts in surface water storage release patterns among local and regional agencies. Operations related to EWA will be affected by precipitation. In wet years, surface water will be the primary EWA asset and in dry years, groundwater will become the primary EWA asset and operations will shift accordingly. In general, the EWA would be expected to increase instream water levels and to provide for more water in San Luis Reservoir.

The EWA will allow the further curtailment of Delta pumping to reduce the entrainment of fish at the SWP Banks and CVP Tracy pumping plants to achieve benefits beyond the existing environmental baseline. Pumping could increase when substantial impacts to

sensitive fish are not likely, in order to move water controlled by the EWA. However, the final pumping pattern will remain within the possible patterns that the SWP is allowed under the existing SWRCB Water Quality Control Plan (WQCP).

Water surface levels in San Luis Reservoir would decrease in response to EWA Delta export cuts or if the EWA delivers water out of San Luis Reservoir to repay past borrowing from Metropolitan, the SWP or the CVP. San Luis Reservoir storage will increase in response to higher Delta exports on behalf of the EWA or due to voluntary shifts in delivery patterns, water purchases in the export area, exchanges, or source shifts. However, San Luis storage patterns and water levels will range within current operational parameters.

Because the EWA assets are being acquired from diverse geographical areas of the State, there will be no cumulative impacts on any one water supply from EWA actions. The Department and Reclamation will continue cooperatively to identify available sources of water that can be used for EWA, Dry Year, and other water transfer actions.

Energy and Power

The Project analyzed in this report will result in less pumping during the summer months and possibly greater pumping in the fall/winter. However, other water transfers proposed during the first year of EWA operations may result in moving water during the summer. The quantity of water moved during the summer would be less than SWP historically has moved during the summer. Therefore, although there may be changes in the timing of the movement of the water from historical patterns, the volume of water moved will not change and there should be no overall increase in power used to move water.

VII. MANDATORY FINDINGS OF SIGNIFICANCE

The Project does not have the potential to substantially degrade the quality of the environment. The Project will be conducted entirely within the existing SWP/CVP operations in the State of California. No new structures will be constructed. The proposed Project will involve source shifting to meet the requirements of the EWA and would not eliminate important examples of California history. In addition, the Project will not have cumulative impacts. No direct or indirect impacts to human beings or biological resources would be anticipated from the implementation of the Project.

VIII. CONSISTENCY WITH PLANS AND POLICIES

The following documents address compliance with Delta issues and Metropolitan service area local plans and policies. This document incorporates the following documents by reference.

Coordinated Operations Agreement

The Project Agencies shall continue to adhere to the general sharing principles contained in the 1986 Coordinated Operations Agreement (COA) as modified by interim operating agreements to reflect changes in regulatory standards, facilities, and operating conditions, including the EWA.

Sacramento-San Joaquin Bay-Delta Regulations

- 1995 Delta Water Quality Control Plan
- Central Valley Project Improvement Act

Metropolitan Water District of Southern California

- The Regional Urban Water Management Plan for the Metropolitan Water District of Southern California (December 2000)

Diamond Valley Lake

- Eastside Reservoir Project Final Environmental Impact Report (October 1991)

Southern California Plans

- South Coast Air Quality Management Plan
- South Coast Regional Water Quality Control Plan
- South Coast Water Management Plan
- Southern California Association of Governments
- Los Angeles County General Plan

The Project will comply with CALFED environmental compliance agreements where applicable. These include the Clean Water Act Section 404 MOU, the Conservation Agreement Regarding Multi-Species Conservation Strategy, the Programmatic Endangered Species Act Section 7 Biological Opinions, the Natural Community Conservation Plan Determination and the Clean Water Act Section 401 agreement.

IX. CONSULTATION AND COORDINATION

This Initial Study was prepared in consultation and coordination with applicable requirements. The California Department of Water Resources is the Lead Agency responsible for preparing this Initial Study.

Persons Contacted
Dave Fullerton (CALFED)
Teresa Geimer (DWR, SWPAO)
Steve Hirsch (Metropolitan)
Peter Jacobsen (Metropolitan)
Larry Joyce (DWR, O&M)
Chuck Keene (DWR, Southern District)
Christiana Kuewa (Metropolitan)
John Leahigh (DWR, O&M)
Paul Mendoza (DWR, SWPAO)
Victor Pacheco (DWR, EXECUTIVE)
Dave Robinson (USBR)
Laura Simonek (Metropolitan)
Curtis Spencer (DWR,SWPAO)

X. NAMES OF PREPARERS

Delores Brown, Environmental Program Manager, DWR
Collette Zemitis, Staff Environmental Scientist, DWR
Lalania Garner-Winter, Environmental Scientist, DWR

XI. REFERENCES

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National Marine Fisheries Service. 1993. Biological opinion for the operation of the federal Central Valley Project and the California State Water Project. Long Beach, CA.

Semitropic Water Storage District and Metropolitan Water District of Southern California. 1994. Semitropic Groundwater Banking Project Final Environmental Impact Report. July 1994.

U.S. Department of the Interior. Central Valley Project Improvement Act Final Programmatic Environmental Impact Statement. October 1999. Sacramento, CA.

U.S. Fish and Wildlife Service. 1995. Formal Consultation and Conference on Effects of Long-Term Operation of the Central Valley Project and State Water Project of the Threatened Delta Smelt, Delta Critical Habitat, and Proposed Threatened Sacramento Splittail. March 6, 1995. Sacramento, CA.

Water Education Foundation. 1998. Layperson's Guide to The Central Valley Project. 1998. Sacramento, CA.

APPENDIX A

Environmental Checklist

1. Project title: Source Shifting Agreement with Metropolitan Water District of Southern California for the Environmental Water Account

2. Lead agency name and address:

   California Department of Water Resources
   3251 "S" Street
   Sacramento, CA 95816

3. Contact person and phone number:

   Delores Brown (916) 227-2407

4. Project location: Water will be stored in San Luis Reservoir in Merced County. Water will be deferred from Metropolitan service area, which includes portions of the counties: Los Angeles, Ventura, San Bernardino, Orange, Riverside and San Diego. Some of Metropolitan's water supply comes from groundwater storage facilities in Semitropic Water Storage District and Arvin-Edison Water Storage District in Kern County.

5. Project sponsor's name and address:

   Department of Water Resources
   3251 "S" Street
   Sacramento, CA 95816

6. General plan designation: N/A 7. Zoning: N/A

8. Description of project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)

   Lead State Agency, California Department of Water Resources (Department) and Metropolitan Water District of Southern California (Metropolitan) propose to enter into an agreement whereby Metropolitan will defer delivery of up to 200,000 acre-feet of its State Water Project (SWP) entitlement water in 2002 (Project). The water would be made available for use by the Environmental Water Account (EWA), a project implemented under the CALFED Bay-Delta Program. The EWA (managed by the regulatory agencies U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), and California Department of Fish and Game (DFG)) will use the water for the purpose of fish protection. The agreement would allow the Department to call upon Metropolitan to defer delivery of at least 100,000 acre-feet of water. If Metropolitan's SWP allocation as of April 30, 2002 is sufficiently large to provide increased flexibility in Metropolitan's requested schedule, Metropolitan may defer up to an additional 100,000 acre-feet of water. The water may be deferred at a maximum rate of 25,000 acre-feet

per month from January through August 2002 unless the rate and associated deferral schedule are changed by mutual agreement of the Department and Metropolitan. During the time that Metropolitan is deferring water, Metropolitan will rely upon local sources of water to meet its demands.

Depending on water supply conditions and water demand, the Department will return the deferred entitlement water, pay an annual fee to defer return of the water, or pay replacement costs for Metropolitan's purchase of replacement water as mutually agreed upon by the Department and Metropolitan. The Department will provide Metropolitan with a preliminary water repayment schedule on May 1, 2002 and an updated water repayment schedule on September 15, 2002. The Project costs will be paid for with non-contractor funds. Metropolitan and the other SWP contractors will not incur increased costs because of the EWA Program nor will there be an increased incremental cost upon the SWP or Central Valley Project (CVP).

Metropolitan will not receive more than its contractual entitlement as a result of this Project or increase its SWP delivery request. The Department and Metropolitan concur that the Project will not alter the timing or amounts of SWP water available to other contractors.

9. Surrounding land uses and setting: Briefly describe the project's surroundings:

State Water Project, Central Valley Project, California Aqueduct, San Luis Reservoir, Southern California Reservoirs: The California Aqueduct delivers water from the Sacramento-San Joaquin Bay-Delta through central California to SWP water contractors and Southern California reservoirs. Most of the surrounding land use is agriculture or undeveloped natural habitat.

Metropolitan Water District of Southern California Service Area: Metropolitan 5,135-square-mile service area is largely urban.

Arvin-Edison and Semitropic Water Storage Districts: These groundwater storage districts are located in the southern San Joaquin Valley and are predominantly agricultural lands.

10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.)

Department of Fish and Game, USFWS, NMFS- endangered species permits, participation

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

	Aesthetics		Agriculture Resources		Air Quality
	Biological Resources		Cultural Resources		Environmental Justice
	Geology /Soils		Hazards & Hazardous Materials		Hydrology / Water Quality
	Indian Trust Assets		Land Use / Planning		Mineral Resources
	Noise		Population / Housing		Public Services
	Recreation		Transportation/Traffic		Mandatory Findings of Significance

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

✓	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Delores Brown — Signature

11·16·01 — Date

Barbara J McDonnell — Signature

Nov 16, 2001 — Date

EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
   a) Earlier Analysis Used. Identify and state where they are available for review.
   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:
   a) the significance criteria or threshold, if any, used to evaluate each question; and
   b) the mitigation measure identified, if any, to reduce the impact to less than significance

Issues:

	Potentially Significant Impact	**Less Than Significant with Mitigation Incorporation**	**Less Than Significant Impact**	**No Impact**
I. AESTHETICS (See page 19 in the Initial Study for more detailed information) -- Would the project:				
a) Have a substantial adverse effect on a scenic vista?				✓
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				✓
c) Substantially degrade the existing visual character or quality of the site and its surroundings?				✓
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				✓
II. AGRICULTURE RESOURCES (See page 19 in the Initial Study for more detailed information): In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				✓
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				✓
c) Involve other changes in the existing				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?				✓
III. AIR QUALITY (See page 19 in the Initial Study for more detailed information) -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?				✓
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?				✓
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?				✓
d) Expose sensitive receptors to substantial pollutant concentrations?				✓
e) Create objectionable odors affecting a substantial number of people?				✓
IV. BIOLOGICAL RESOURCES (See page 20 in the Initial Study for more detailed information) -- Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				✓
b) Have a substantial adverse effect on any riparian habitat or other sensitive				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?				✓
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				✓
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				✓
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				✓
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				✓
V. CULTURAL RESOURCES (See page 19 in the Initial Study for more detailed information) -- Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?				✓
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?				✓
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				✓

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
d) Disturb any human remains, including those interred outside of formal cemeteries?				✓
VI. Environmental Justice (See page 21 in the Initial Study for more detailed information) – Would the project:				
a) Place disproportionately high adverse human health or environmental effects on minority and low-income populations?				✓
b) Treat people of particular races, cultures, or incomes unfairly with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies?				✓
c) Provide fair treatment of people of all races, cultures, and incomes with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies?				✓
VII. GEOLOGY AND SOILS (See page 22 in the Initial Study for more detailed information) -- Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				✓
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				✓
ii) Strong seismic ground shaking?				✓
iii) Seismic-related ground failure, including liquefaction?				✓

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
iv) Landslides?				✓
b) Result in substantial soil erosion or the loss of topsoil?				✓
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?				✓
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?				✓
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				✓
VIII. HAZARDS AND HAZARDOUS MATERIALS (See page 19 in the Initial Study for more detailed information) – Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				✓
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?				✓
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				✓
d) Be located on a site which is included				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				✓
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				✓
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				✓
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				✓
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				✓
VIII. HYDROLOGY AND WATER QUALITY (See page 23 in the Initial Study for more detailed information) -- Would the project:				
a) Violate any water quality standards or waste discharge requirements?				✓
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level				✓

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
which would not support existing land uses or planned uses for which permits have been granted)?				
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?				✓
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?				✓
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?				✓
f) Otherwise substantially degrade water quality?				✓
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				✓
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				✓
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				✓
j) Inundation by seiche, tsunami, or mudflow?				✓

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
X. INDIAN TRUST ASSETS (See page 22 in the Initial Study for more detailed information) -- Would the project:				
a) Sell, lease, or alienate any Indian Trust Assets without approval from the United State through the Bureau of Indian Affairs?				✓
a) Reduce the value of an Indian Trust Asset without approval from the United State through the Bureau of Indian Affairs?				✓
XI. LAND USE AND PLANNING (See page 27 in the Initial Study for more detailed information) -- Would the project:				
a) Physically divide an established community?				✓
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				✓
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				✓
XII. MINERAL RESOURCES (See page 19 in the Initial Study for more detailed information) -- Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				✓
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				✓

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
XIII. NOISE (See page 19 in the Initial Study for more detailed information) – Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?				✓
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?				✓
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				✓
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?				✓
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				✓
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				✓
XIV. POPULATION AND HOUSING (See page 28 in the Initial Study for more detailed information)-- Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				✓

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				✓
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				✓
XV. PUBLIC SERVICES (See page 28 in the Initial Study for more detailed information):				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				✓
Fire protection?				✓
Police protection?				✓
Schools?				✓
Parks?				✓
Other public facilities?				✓
XVI. RECREATION (See page 28 in the Initial Study for more detailed information):				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				✓
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				✓

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
XVII. TRANSPORTATION/TRAFFIC (See page 19 in the Initial Study for more detailed information) -- Would the project:				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?				✓
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?				✓
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				✓
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				✓
e) Result in inadequate emergency access?				✓
f) Result in inadequate parking capacity?				✓
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?				✓
XVIII. UTILITIES AND SERVICE SYSTEMS (See page 19 in the Initial Study for more detailed information) – Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				✓
b) Require or result in the construction of				✓

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				✓
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				✓
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				✓
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				✓
g) Comply with federal, state, and local statutes and regulations related to solid waste?				✓
XIX. MANDATORY FINDINGS OF SIGNIFICANCE (See page 34 in the Initial Study for more detailed information):				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods				✓

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
of California history or prehistory?				
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?				✓
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?				✓

APPENDIX B

Article 19 Objectives for Water Quality Parameters

Parameter	Units	Article 19 Objective		
		Monthly Average	10 Year Average	Maximum
Arsenic				0.05
Boron				0.6[17]
Chloride	mg/L	110	55	
Hexavalent Chromium				0.05
Copper				3.0
Fluoride				1.5
Iron + Manganese				0.3
Lead				0.1
Selenium				0.05
Sodium	%[18]	50	40	
Total Dissolved Solids	mg/L	440	220	
Total Hardness as $CaCO_3$	mg/L	180	110	
Zinc				15

[17] Monthly Average
[18] Percentage of cationic composition